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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,067	05/23/2001	Thomas J. Meade	A-58762-20/RFT/RMS/RMK	7813

7590 12/23/2003

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EXAMINER	
LU, FRANK WEI MIN	
ART UNIT	**PAPER NUMBER**
1634	

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/866,067	MEADE ET AL.	
	Examiner	Art Unit	
	Frank W Lu	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Applicant's response to the office action filed on August 25, 2003 has been entered. The claims pending in this application are claims 21-32. Rejection and/or objection not reiterated from the previous office action are hereby withdrawn in view of applicant's response filed on August 25, 2003.

Priority

2. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification of in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number. Although this instant application claims priority for earlier applications, these earlier applications are not listed in the first sentence of the specification.

Specification

3. The disclosure is objected to because of the following informality: there are Figures 1A to 1H, Figures 2A-1 to 2A-9, and Figures 2B-1 to 2B-9. However, BRIEF DESCRIPTION OF THE DRAWINGS only describes Figures 1 and 2.

Appropriate correction is required.

Claim Objections

4. Claims 25 and 30 are objected to because of the following informality: "ruthenium" should be "a ruthenium atom".

5. Claims 26 and 31 are objected to because of the following informality: "iron" should be "an iron atom".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 21-23 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue *et al.,* (US Patent No. 4,965,350, published on October 1990).

Inoue *et al.,* teach pyridopyrimidine nucleotide compounds.

Regarding claims 21-23, according to the specification, "electron donor moiety" and "electron acceptor moiety" are "molecules capable of electron transfer under certain conditions. It is to be understood that electron donor and acceptor capabilities are relative; that is, a molecule which can lose an electron under certain experimental conditions will be able to accept an

electron under different experimental conditions" (see page 15, lines 6-15). Since 3-(5'-O-triphosphoryl-beta-D-deoxyribofuranosyl) 2,7-dioxopyrido[2,3-d]pyrimidine (see Examples 1-3 in columns 13-16) has three phosphates and a hydroxyl group on the 2' position of its ribose (covalently attached) and it is known that the hydroxyl group can donate a pair of electrons, 3-(5'-O-triphosphoryl-beta.-D-deoxyribofuranosyl)2,7-dioxopyrido[2,3-d]pyrimidine is a modified nucleotide triphosphate as recited in claims 21-23.

Regarding claims 27-29, since 3-(5'-O-phosphoryl-.beta.-D-2'-deoxyribofuranosyl)-2,7-dioxopyrido[2,3-d]pyrimidine (see column 14) has a phosphate and a hydroxyl group on the 2' position of its ribose (covalently attached) and it is known that the hydroxyl group can donate a pair of electrons, 3-(5'-O-phosphoryl-.beta.-D-2'-deoxyribofuranosyl)-2,7-dioxopyrido[2,3-d]pyrimidine is a modified nucleotide as recited in step a) of claim 27. Since -(5'-O-phosphoryl-.beta.-D-2'-deoxyribofuranosyl)-2,7-dioxopyrido[2,3-d]pyrimidine is used to synthesize to 3-(5'-O-triphosphoryl-beta.-D-deoxyribofuranosyl)2,7-dioxopyrido[2,3-d]pyrimidine wherein 3-(5'-O-triphosphoryl-beta.-D-deoxyribofuranosyl)2,7-dioxopyrido[2,3-d]pyrimidine (see Examples 1-3 in columns 13-16) has three phosphates and a hydroxyl group on the 2' position of its ribose (covalently attached) (see columns 13-16), and it is known that the hydroxyl group can a pair of electrons, 3-(5'-O-triphosphoryl-beta.-D-deoxyribofuranosyl)2,7-dioxopyrido[2,3-d]pyrimidine is a modified nucleotide triphosphate as recited in step b) of claim 27 and claims 28 and 29. Since 3-(5'-O-triphosphoryl-beta.-D-deoxyribofuranosyl)2,7-dioxopyrido[2,3-d]pyrimidine is used for synthesis of the dodecamers containing a fluorescent pyrimidine nucleotide (see Figure 1 and example 4 in columns 16-18), step c) of claim 27 is anticipated by Inoue *et al.*.

Therefore, Inoue *et al.*, teach all limitations recited in claims 21-23 and 27-29.

8. Claims 21, 22, 24, 25, 27, 28, 30, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Bannwarth *et al.*, (US Patent No. 5,278,043, filed on January 1991).

Bannwarth *et al.*, teach ruthenium-lumazine energy transfer systems.

Regarding claims 21, 22, 24, and 25, according to the specification, "electron donor moiety" and "electron acceptor moiety" are "molecules capable of electron transfer under certain conditions. It is to be understood that electron donor and acceptor capabilities are relative; that is, a molecule which can lose an electron under certain experimental conditions will be able to accept an electron under different experimental conditions" (see page 15, lines 6-15). Since a chromophore of the lumazine type in a nucleic acid and ruthenium complex (see Figure 6) in anther nucleic acid comprise a donor-acceptor energy transfer system (see column 2, lines 20-36) and it is known that a donor-acceptor energy transfer includes transfer of electrons, ruthenium complex such as the Ru complex H-phosphonate (see Figure 6) is an electron transfer moiety as recited in claim 21. Since Ru complex H-phosphonate is covalently attached to ribose of guanine and a modified nucleotide triphosphate (see Figure 1) is considered as a nucleotide that is different from a nucleotide triphosphate, claims 21, 22, 24, and 25 are anticipated by Bannwarth *et al.*, wherein a complex in Figure 1 is a modified nucleotide triphosphate as recited in claim 21.

Regarding claims 27, 28, 30, and 31, since Ru complex H-phosphonate is covalently attached to ribose of guanine and a modified nucleotide triphosphate is considered as a nucleotide that is different from a nucleotide triphosphate (see Figures 1 and 6), Ru complex H-

phosphonate and a complex in Figure 1 are considered as a modified nucleotide as recited in step a) of claim 27 and a modified nucleotide triphosphate as recited in step b) of claim 27 respectively. Since a modified nucleotide triphosphate is used for synthesis of oligonucleotides (see column 5, lines 1-20), step c) of claim 27 is anticipated by Bannwarth *et al.*. Since Ru complex H-phosphonate is covalently attached to ribose of guanine and a modified nucleotide triphosphate (see Figure 1) is considered as a nucleotide that is different from a nucleotide triphosphate, claims 28, 30, and 31 are anticipated by Bannwarth *et al.*, wherein a complex in Figure 1 is a modified nucleotide triphosphate.

Therefore, Bannwarth *et al.*, teach all limitations recited in claims 21, 22, 24, 25, 27, 28, 30, and 31.

Claim Rejections – 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bannwarth *et al.,* (January 1991) as applied to claims 21, 22, 24, 25, 27, 28, 30, and 31 above.

The teachings of Bannwarth *et al.,* have been summarized previously, *supra.*

Bannwarth *et al.,* do not disclose said transition metal complex comprising an iron atom as recited in claims 26 and 32.

However, it would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to have used a transition metal complex comprising an iron atom as an electron transfer moiety as recited in claims 26 and 32 in view of the patent of Bannwarth *et al.*. One having ordinary skill in the art would have been motivated to do so because both ruthenium and iron are belong to transition metal VIIIB and the simple replacement of one chemical element (ie., ruthenium) from another chemical element with a similar properties during the process of making a transition metal complex would have been, in the absence of convincing evidence to the contrary, *prima facie* obvious to one having ordinary skill in the art at the time the invention was made because the replacement would not change the intended use of the transition metal complex.

Furthermore, the motivation to make the substitution cited above arises from the expectation that the prior art elements will perform their expected functions to achieve their expected results when combined for their common known purpose. Support for making the obviousness rejection comes from the M.P.E.P. at 2144.06 and 2144.09.

Also note that there is no invention involved in combining old elements is such a manner that these elements perform in combination the same function as set forth in the prior art without giving unobvious or unexpected results. *In re Rose* 220 F.2d. 459, 105 USPQ 237 (CCPA 1955).

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 21-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,780,234. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-24 in this instant application are not identical to claims 1-21 of US Patent No.5,780,234, since 5' end of a single stranded nucleic acid recited in claim 2 is a nucleotide triphosphate and the

single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-12 in US Patent No. 5,780,234 are directed to the same subject matter and fall entirely within the scope of claims 21-24 in this instant application. In other words, claims 21-24 in this instant application are anticipated by claims 1-12 of US Patent No. 5,780,234.

13. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,591,578. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1-8 of US Patent No.5,591,578, since 5' end of a single stranded nucleic acid recited in claim 1 or 2 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-8 in US Patent No. 5,591, 578 are directed to the same subject matter and fall entirely within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1-8 of US Patent No. 5,591, 578.

14. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,087,100. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been

obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1-16 of US Patent No. 6,087,100, since 5'end of a single stranded nucleic acid recited in claim 1 or 2 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-16 in US Patent No. 6,087,100 are directed to the same subject matter and fall entirely within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1-16 of US Patent No. 6,087,100.

15. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,238,870B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1-12 of US Patent No .6,238,870B1, since 5' end of a single stranded nucleic acid recited in claim 1 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-12 in US Patent No. 6,238,870B1 are directed to the same subject matter and fall entirely

within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1-12 of US Patent No. 6,238,870B1.

16. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,177,250B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1-18 of US Patent No. 6,177,250B1, since 5' end of a single stranded nucleic acid recited in claim 1 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-18 in US Patent No. 6,177,250B1 are directed to the same subject matter and fall entirely within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1-18 of US Patent No. 6,177,250B1.

17. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3-13 of U.S. Patent No. 5,770,369. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*,

686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1 and 3-13 of US Patent No.5,770, 369, since 5' end of a single stranded nucleic acid recited in claim 1 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1 and 3-13 in US Patent No.5,770,369 are directed to the same subject matter and fall entirely within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1 and 3-13 of US Patent No. 5,770,369.

18. Claims 21-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,705,348. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21-26 in this instant application are not identical to claims 1-12 of US Patent No.5,705, 348, since 5'end of a single stranded nucleic acid recited in claim 1 or 2 is a nucleotide triphosphate and the single stranded nucleic acid can be considered as a modified nucleotide triphosphate, claims 1-12 in US Patent No. 5,705,348 are directed to the same subject matter and fall entirely within the scope of claims 21-26 in this instant application. In other words, claims 21-26 in this instant application are anticipated by claims 1-12 of US Patent No. 5,705,348.

19. Claims 21 and 22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,063,573. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims in this instant application is either anticipated by, or would have been obvious over, the reference claims. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). Although claims 21 and 22 in this instant application are not identical to claims 1-11 of US Patent No. 6,063,573, since 5'end of a primary single stranded scissile probe recited in claim 1 is a nucleotide triphosphate and the primary single stranded scissile probe can be considered as a modified nucleotide triphosphate, claims 1-11 in US Patent No. 6,063,573 are directed to the same subject matter and fall entirely within the scope of claims 21 and 22 in this instant application. In other words, claims 21 and 22 in this instant application are anticipated by claims 1-11 of US Patent No. 6,063,573.

Conclusion

20. No claim is allowed.

21. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG

94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is either (703) 308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (703) 305-1270 (before January 13, 2004) or 571-272-0746 (after January 13, 2004). The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (703) 308-1119.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

Frank Lu
PSA
December 15, 2003